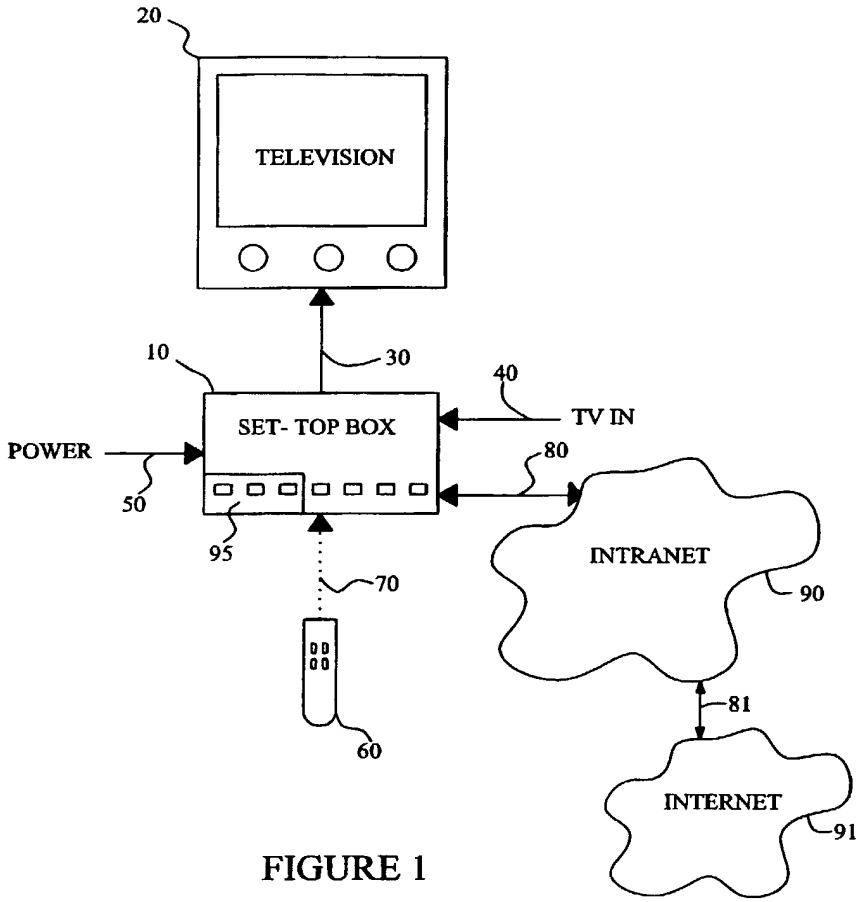
20
TELEVISION
30
10
40
TV IN
SET- TOP BOX
POWER
50
80
95
70
INTRANET
90
60
81
INTERNET
91

FIGURE 1

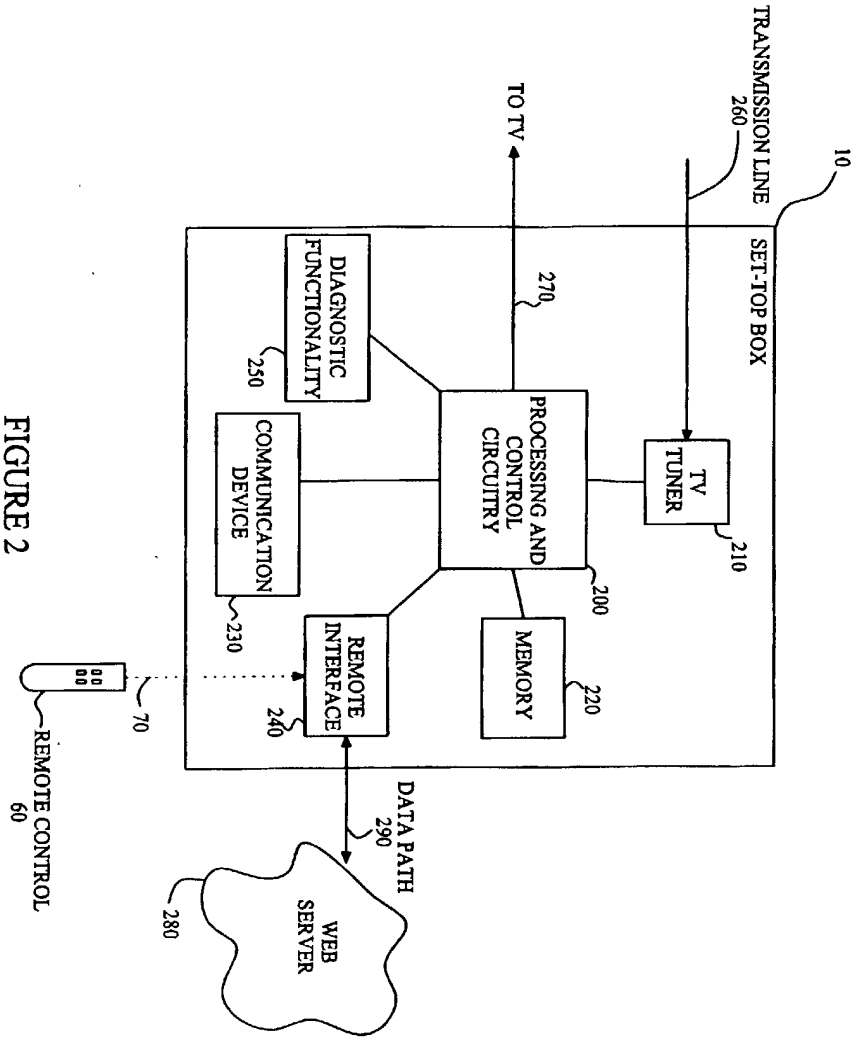
TRANSMISSION LINE
260
10
SET-TOP BOX
TO TV
270
DIAGNOSTIC FUNCTIONALITY
250
PROCESSING AND CONTROL CIRCUITRY
200
TV TUNER
210
COMMUNICATION DEVICE
230
MEMORY
220
REMOTE INTERFACE
240
70
REMOTE CONTROL
60
DATA PATH
290
WEB SERVER
280

FIGURE 2

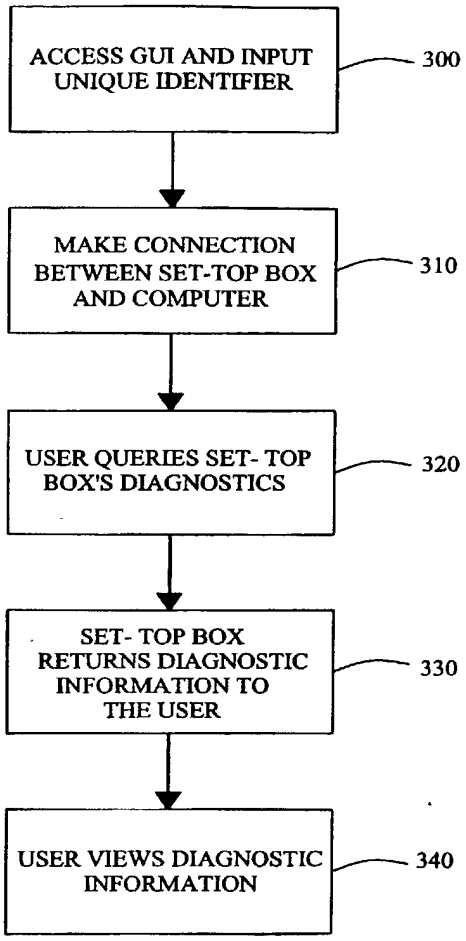
ACCESS GUI AND INPUT UNIQUE IDENTIFIER
300
MAKE CONNECTION BETWEEN SET-TOP BOX AND COMPUTER
310
USER QUERIES SET- TOP BOX'S DIAGNOSTICS
320
SET- TOP BOX RETURNS DIAGNOSTIC INFORMATION TO THE USER
330
USER VIEWS DIAGNOSTIC INFORMATION
340

FIGURE 3

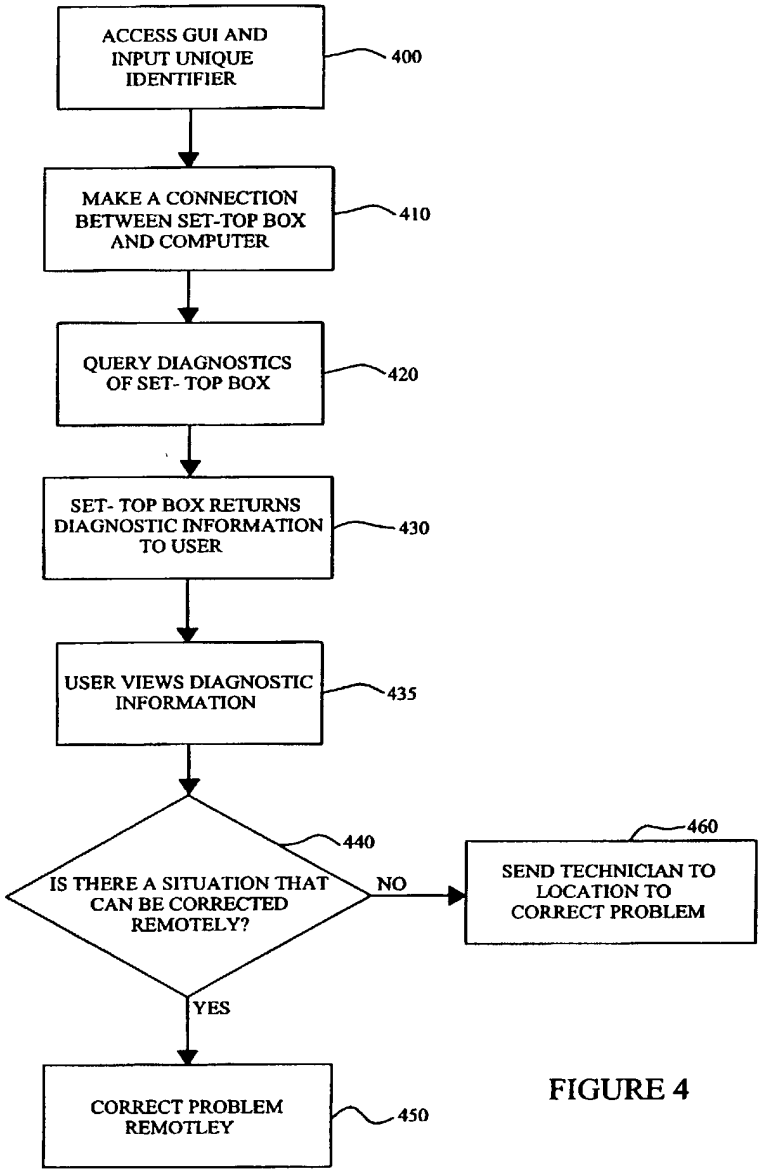
ACCESS GUI AND INPUT UNIQUE IDENTIFIER
400
MAKE A CONNECTION BETWEEN SET-TOP BOX AND COMPUTER
410
QUERY DIAGNOSTICS OF SET- TOP BOX
420
SET- TOP BOX RETURNS DIAGNOSTIC INFORMATION TO USER
430
USER VIEWS DIAGNOSTIC INFORMATION
435
440
IS THERE A SITUATION THAT CAN BE CORRECTED REMOTELY?
NO
460
SEND TECHNICIAN TO LOCATION TO CORRECT PROBLEM
YES
CORRECT PROBLEM REMOTLEY
450

FIGURE 4

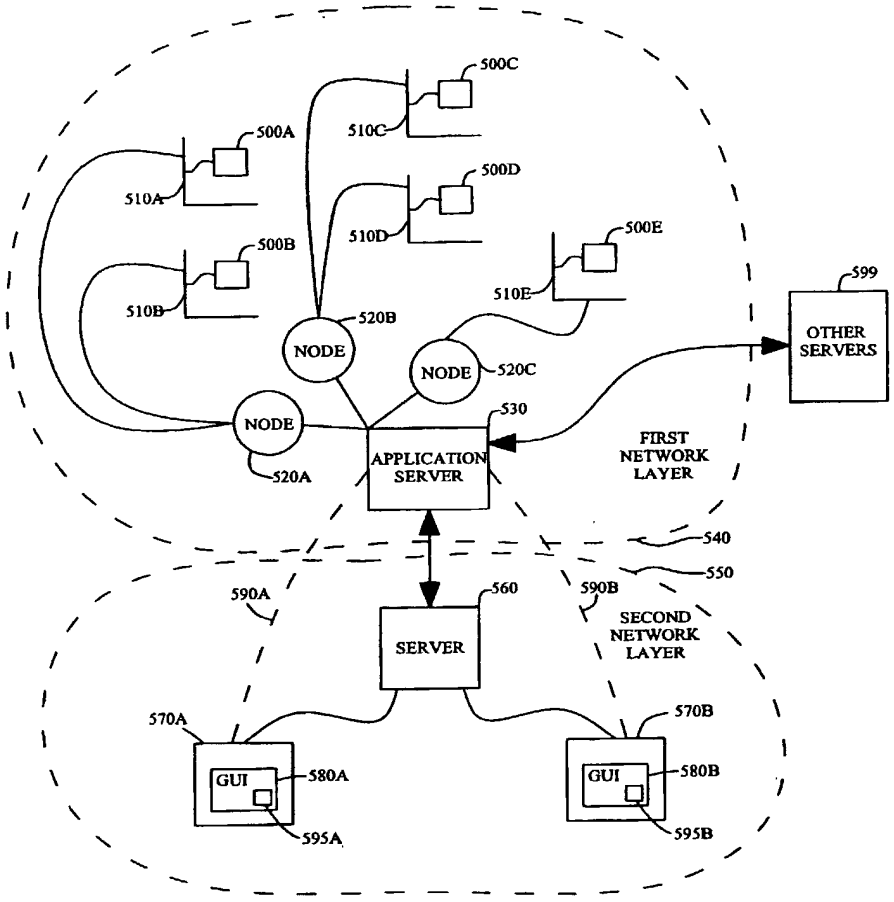
500C
510C
500A
510A
500D
510D
500B
510B
500E
510E
599
OTHER SERVERS
520B
NODE
NODE
520C
NODE
520A
530
APPLICATION SERVER
FIRST NETWORK LAYER
540
550
590A
560
590B
SECOND NETWORK LAYER
SERVER
570A
570B
GUI
580A
GUI
580B
595A
595B

FIGURE 5

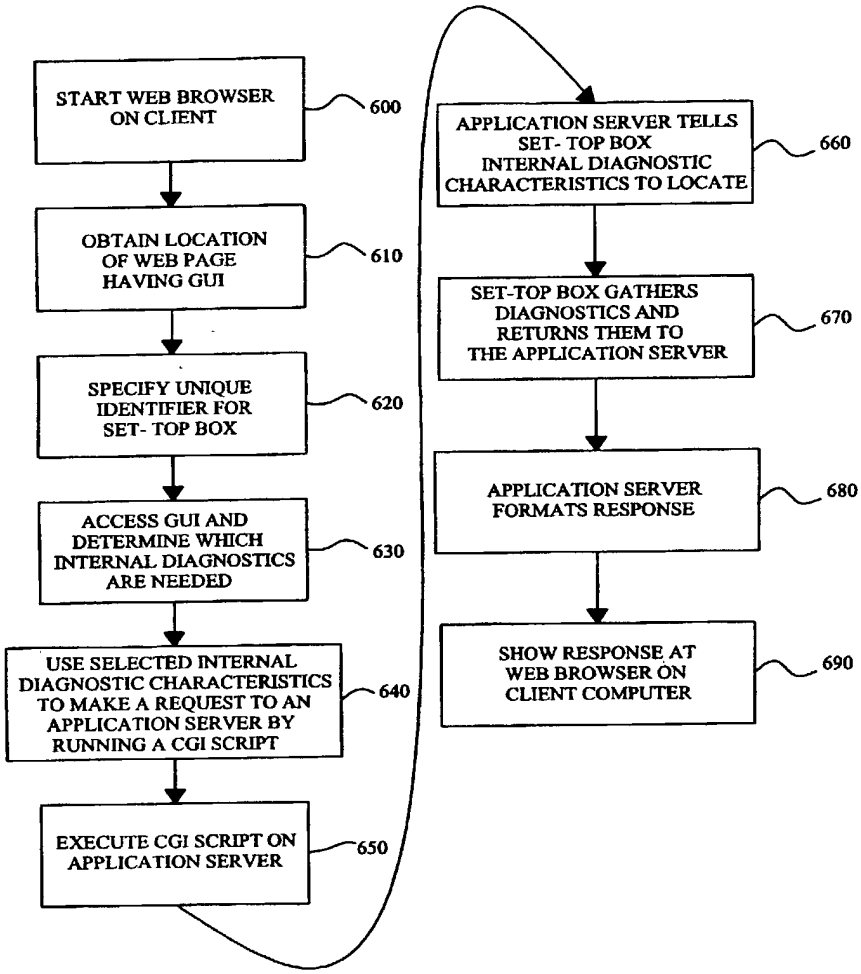
START WEB BROWSER ON CLIENT
600
OBTAIN LOCATION OF WEB PAGE HAVING GUI
610
SPECIFY UNIQUE IDENTIFIER FOR SET- TOP BOX
620
ACCESS GUI AND DETERMINE WHICH INTERNAL DIAGNOSTICS ARE NEEDED
630
USE SELECTED INTERNAL DIAGNOSTIC CHARACTERISTICS TO MAKE A REQUEST TO AN APPLICATION SERVER BY RUNNING A CGI SCRIPT
640
EXECUTE CGI SCRIPT ON APPLICATION SERVER
650
APPLICATION SERVER TELLS SET- TOP BOX INTERNAL DIAGNOSTIC CHARACTERISTICS TO LOCATE
660
SET-TOP BOX GATHERS DIAGNOSTICS AND RETURNS THEM TO THE APPLICATION SERVER
670
APPLICATION SERVER FORMATS RESPONSE
680
SHOW RESPONSE AT WEB BROWSER ON CLIENT COMPUTER
690

FIGURE 6

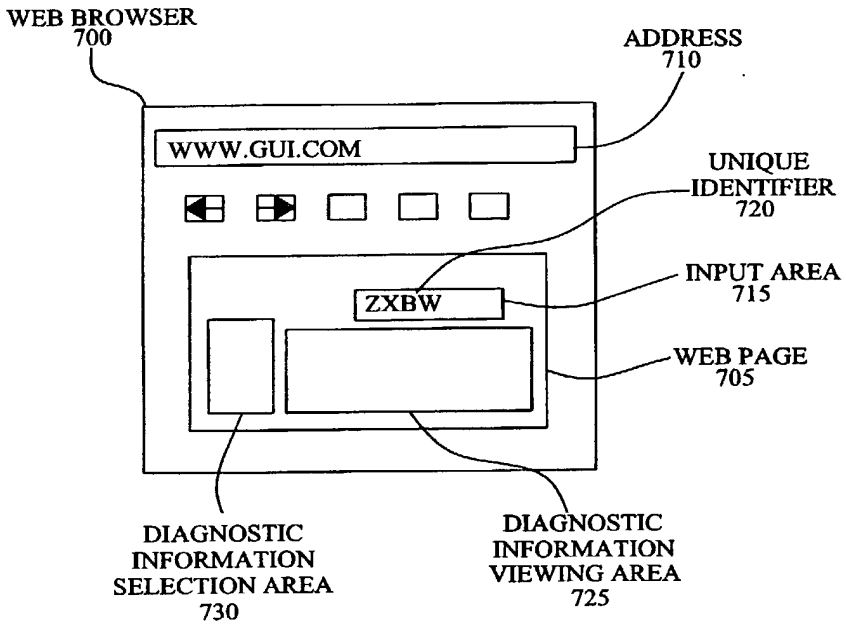
WEB BROWSER
700
ADDRESS
710
WWW.GUI.COM
UNIQUE
IDENTIFIER
720
INPUT AREA
715
ZXBW
WEB PAGE
705
DIAGNOSTIC
INFORMATION
SELECTION AREA
730
DIAGNOSTIC
INFORMATION
VIEWING AREA
725

FIGURE 7